

Sixth stage.—Nearly as in the two previous stages; width of head 3.2 mm. The dorsal space is partly filled in with blue, except for a black edging to the dorsal white spots, a black spot on each side of the white spots at their obsolete junction and the short orange red streaks supplementary to the subdorsal orange red line. The white spots on joints 3 and 4 are larger than the others, single, elongate, and in some examples the posterior white dot on all segments is partly orange or rarely obsolete. The blue band is minutely black dotted, followed by the pale orange lateral line which is rather irregular. Space below, blue gray, the substigmatal line and the one along the bases of legs yellowish faint and broken, or obsolete; spiracles large, black; feet gray; venter blue gray with a median row of black spots. The cervical shield and anal plate are blue gray tinged with black. Subdorsal warts on joint 2 rather large; joint 12 enlarged a little dorsally. Dorsal hair very scant, blackish, the subventral hair thick, partly silky white with some dusky and reddish hairs intermixed.

Cocoon.—Enclosed in an outer layer of silk, elliptical thin, composed entirely of silk, made opaque by an exudation from the anus of the larva, which dries into a pale yellow powder. Size 25×8 mm.

Pupa.—Cylindrical, posterior abdominal segments rapidly tapering, rounded at both ends, no cremaster. Color black, rather shiny, covered with short brown pile, except the cases which are bare. Length 18 mm.; width 4 mm. Duration of this stage 26 days. The moths appear during July.

Food plants.—Oak (*Quercus*), poplar (*Populus*), willow (*Salix*), alder, (*Alnus*), wild rose, (*Rosa*), peach and cherry (*Prunus*), apple (*Pyrus*) and others.

Habitat.—Oregon and Washington west of the Cascade range. Found at Portland and Bonneville, Oregon, Seattle and Vancouver, Washington. This is the common *Clisiocampa* of the Pacific Northwest and takes the place of *C. distria* of the Atlantic States. It

is abundant in the valley of the Columbia, but becomes more rare to the north. But two larvae were seen in Seattle, Wash., while in Portland, Or., many fruit and shade trees were largely defoliated by the larvae, and they were frequently observed resting in large compact masses on the tree trunks.

A LOWER SILURIAN INSECT FROM SWEDEN.
—For a long time the Devonian insects of New Brunswick were the oldest known from any part of the world. Seven years ago, however, Brongniart discovered in the lower part of the upper Silurian of Calvados, France, a single wing which he regarded as a cockroach and named *Palaeoblattina douvillei*. And now Moberg announces the discovery of an hemipterous insect, which he calls *Protocimex siluricus*, in the still older rocks of Flagabro in Scania, belonging to the upper members of the lower Graptolitic slates, that is the upper part of the lower Silurian. Figures are given in the *Förhandlingar* of the Swedish geological society.

ENTOMOLOGICAL NOTES.—The first signature of a new general Catalogue of Hemiptera has just been issued by Lethierry and Severin at Bruxelles. The arrangement is systematic down to the genera but the species are given alphabetically and the number of species added at the end of each genus and subfamily. The present sheet includes a portion of the Pentatomidae: the Plataspidæ (19 genera and 187 species), the Corimelaenidae (10 genera, 66 species) and a few Scutelleridae. It will prove of great service.

Entomologists everywhere will regret to hear that the serious illness which has, for the past two years, incapacitated Dr. H. A. Hagen renders it improbable that he will be able to do any further work. Dr. Hagen has had charge of the collections of insects in the Museum of comparative zoology at Harvard University since October 12, 1867, and during this long period of twenty-five years has applied himself with entire devotion to the interests of the department. The scientific